Quantum Consciousness Documentary

Quantum Consciousness - Stan Lee´s Superhuman Scientific Project with Miroslaw Magola .

The quantum mind or quantum consciousness group of hypotheses propose that classical mechanics cannot explain consciousness. It posits that quantum mechanical phenomena, such as quantum entanglement and superposition, may play an important part in the brain's function

Can Quantum Physics Explain Consciousness?

A new approach to a once-farfetched theory is making it plausible that the brain functions like a quantum computer.

The mere mention of “quantum consciousness” makes most physicists cringe, as the phrase seems to evoke the vague, insipid musings of a New Age guru. But if a new hypothesis proves to be correct, quantum effects might indeed play some role in human cognition. Matthew Fisher, a physicist at the University of California, Santa Barbara, raised eyebrows late last year when he published a paper in Annals of Physics proposing that the nuclear spins of phosphorus atoms could serve as rudimentary “qubits” in the brain—which would essentially enable the brain to function like a quantum computer.

As recently as 10 years ago, Fisher’s hypothesis would have been dismissed by many as nonsense. Physicists have been burned by this sort of thing before, most notably in 1989, when Roger Penrose proposed that mysterious protein structures called “microtubules” played a role in human consciousness by exploiting quantum effects. Few researchers believe such a hypothesis plausible. Patricia Churchland, a neurophilosopher at the University of California, San Diego, memorably opined that one might as well invoke “pixie dust in the synapses” to explain human cognition.

Fisher’s hypothesis faces the same daunting obstacle that has plagued microtubules: a phenomenon called quantum decoherence. To build an operating quantum computer, you need to connect qubits—quantum bits of information—in a process called entanglement. But entangled qubits exist in a fragile state. They must be carefully shielded from any noise in the surrounding environment. Just one photon bumping into your qubit would be enough to make the entire system “decohere,” destroying the entanglement and wiping out the quantum properties of the system. It’s challenging enough to do quantum processing in a carefully controlled laboratory environment, never mind the warm, wet, complicated mess that is human biology, where maintaining coherence for sufficiently long periods of time is well nigh impossible.

Over the past decade, however, growing evidence suggests that certain biological systems might employ quantum mechanics. In photosynthesis, for example, quantum effects help plants turn sunlight into fuel. Scientists have also proposed that migratory birds have a “quantum compass” enabling them to exploit Earth’s magnetic fields for navigation, or that the human sense of smell could be rooted in quantum mechanics.

Fisher’s notion of quantum processing in the brain broadly fits into this emerging field of quantum biology. Call it quantum neuroscience. He has developed a complicated hypothesis, incorporating nuclear and quantum physics, organic chemistry, neuroscience and biology. While his ideas have met with plenty of justifiable skepticism, some researchers are starting to pay attention. “Those who read his paper (as I hope many will) are bound to conclude: This old guy’s not so crazy,” wrote John Preskill, a physicist at the California Institute of Technology, after Fisher gave a talk there. “He may be on to something. At least he’s raising some very interesting questions.”